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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,547

03/10/2004

Richard T. Simko

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02/09/2005

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

LUU, PHO M

ART UNIT

PAPER NUMBER

2824

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,547

Applicant(s)

SIMKO, RICHARD T.

Examiner

Pho M Luu

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 25-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-24 is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8 and 9 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/28/2004</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Search History</u> . |

DETAILED ACTION

Reply to Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-24 filed 08 November 2004 is acknowledged. The changes and remarks disclosed therein were considered.
2. Claims 25-34 have been canceled.
3. Claims 1-24 are pending in the application.

Information Disclosure Statement

4. Acknowledgment is made of applicant's Information Disclosure Statement (IDS) Form PTO-1449, filed 28 June 2004. The information disclosed therein was considered.

Specification

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because it uses the phrase **"The present invention includes"** in line 4, **"In one embodiment, the present invention includes"** in line 5 and **"Additionally, embodiment of the present invention"** in line 11, which is implied. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 6 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamano. (US. 5,677,874).

Regarding claim 1, Yamano in Figures 8-11 disclosed a nonvolatile memory (101, Figure 9) comprising:

a nonvolatile memory element (104, Figure 9) having at least first and second terminal;

a voltage source (example, the voltage between 7-9 volts applied to the drain and the source with generate the hot electron in Figure 8, see column 1, lines 57-61)

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coupled to at least one terminal to provide a first voltage during a first time period being less than the voltage required (threshold voltage 12 voltage, Figure 8) for electrons to flow to or from a floating gate of the nonvolatile memory element (see column 1, lines 51-67) and

a charge pump circuit (107, Figure 9-10) coupled to at least one terminal including at least one capacitor (the charge pump 107 in Figure 10 include a capacitor 114, 115) that receives a second voltage (the charge pump 107 is supply with a power supply Vcc (113) in Figure 100) during a second time period increase the voltage on the terminal that the electrode flow or floating gate of the nonvolatile memory element (example, see column 2, lines 58 through column 3, lines 6).

With respected to claim 6, Yamono in Figure 9 disclosed the nonvolatile memory including a redundant nonvolatile memory element (inherently, the nonvolatile memory 101 including redundant sector of memory cell 104 is use in place of the defective memory cell) and a redundant charge pump (inherently, the charge pump circuit 107 include redundant charge pump).

With respected to claims 8-9, Yamono in Figures 9-11 disclosed the nonvolatile memory element (104) comprises a nonvolatile device coupled to a tunneling capacitor (114, 115, Figure 10).

Allowable Subject Matter

9. Claims 2-5 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, the prior art of record do not disclose or suggest a third voltage that the different between the voltage on the first terminal and the third voltage is less than the breakdown voltage of the one or more transistor.

Regarding claim 4, the prior art of record do not disclose or suggest a current flow to the floating gate is at a first voltage and turning off the current at second voltage.

Regarding claim 7, the prior art of record do not disclose or suggest a capacitor comprises doped active region.

11. Claims 10-24 are allowed.

The following is an examiner's statement of reasons for allowance:

There is no teaching or suggestion in the prior art to: "the first voltage being greater than the second voltage and during a second time period following the first time period, a third voltage is coupled through at least one of the capacitor to the first terminal, the third voltage increasing the voltage on the first terminal from the floating gate" as claimed in the independent claim 10.

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Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

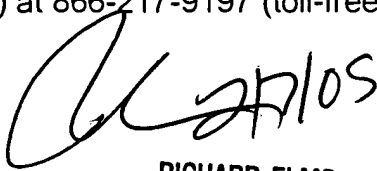
Hung et al. (U.S. 6,366,519) disclosed a nonvolatile circuit including a charge pump to generate a reference voltage higher than the supply voltage in response to the supply voltage in.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pho M. Luu whose telephone number is 571.272.1876. The examiner can normally be reached on M-F 8:00AM – 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Richard Elms, can be reached on 571.272.1869. The official fax number for the organization where this application or proceeding is assigned is 703.872.9306 for all official communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PML
28 January 2005


RICHARD ELMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800